**NAME OF WORK : AUGMENTATION OF WATER SUPPLY THROUGH BOREWELL, NETWORK OF PIPELINES AND GROUND WATER RECHARGE FACILITIES IN WARD NO.05 & 06 (PACKAGE CONSISTS OF 6 WORKS)**

**PMC**

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
# 4, 7TH MAIN MALLESWARAM, BANGALORE -3

To,

Date: 12-06-2023

ASSISTANT EXECUTIVE ENGINEER

BYATARAYANAPURA SUB DIVISION

BBMP

BANGALORE

Dear Sir,

**Sub:** M/s. Civil Pro Services for the work of **"AUGMENTATION OF WATER SUPPLY THROUGH BOREWELL, NETWORK OF PIPELINES AND GROUND WATER RECHARGE FACILITIES IN WARD NO.05 & 06 (PACKAGE CONSISTS OF 6 WORKS)."**

**Ref:** 1. Work Order No: EE/BTP/WO/65/2022-23

2. Job code: 005-23-000003

We are here with forwarding to M/s Nagasandra Shamanna RamaRao (Rajalakshmi Rock Drillers), No.41, Rukmini nagar, Nagasandra, Bangalore-560073. First & Part Bill duly verified and certified that the work is satisfactory and for a Gross Value of Rs. 2,47,72,920.00/- (Rs. Two Crore Forty Seven Lakhs Seventy Two Thousand Nine Hundred and Twenty Only).

Thanking you,

Yours faithfully,

CIVIL Pro Sig Date BANGALORE

**For Civil Pro**

**R RUDRAPRASAD**
AUTHORIZED SIGNATORY
CIVIL PRO

Attachments PMC Compliance report

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿಬಿಎಂಪಿ ಬೆಂಗಳೂರು-26

**NAME OF WORK:- AUGMENTATION OF WATER SUPPLY THROUGH BOREWELL, NETWORK OF PIPELINES AND GROUND WATER RECHARGE FACILITIES IN WARD NO.05 & 06 (PACKAGE CONSISTS OF 6 WORKS).**

**Name of Client** : EXECUTIVE ENGINEER, BYATARAYANAPURA DIVISION, BBMP, BANGALORE

**Contractor/ Agency:** M/s Nagasandra Shamanna RamaRao (Rajalakshmi Rock Drillers), No.41, Rukmini nagar, Nagasandra, Bangalore-560073

**Total Cost** : Rs. 2,47,72,920.00/-

**Date Of Inspection :** 12-06-23

**Status Of Bill** : First & Part Bill

**In the Presence of :** a) Assistant Engineer Byatarayanapura division, BBMP, Bangalore

| PMC COMPLIANCE REPORT | | |
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| **Sl. No.** | **Description of work** | **Comments/Observations** |
| 1 | Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its quality & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etccomplete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |

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ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
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| 2 | Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars and cap etc.,) ,with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work.(0 to 50m) | Work done upto the Billed Quantity and the Quality is satisfactory |
| 3 | 50 to 100 | Work done upto the Billed Quantity and the Quality is satisfactory |
| 4 | 100 to 150 | Work done upto the Billed Quantity and the Quality is satisfactory |
| 5 | 150 to 200 | Work done upto the Billed Quantity and the Quality is satisfactory |
| 6 | 200 to 250 | Work done upto the Billed Quantity and the Quality is satisfactory |
| 7 | 250 to 300 | Work done upto the Billed Quantity and the Quality is satisfactory |
| 8 | 300 to 350 | Work done upto the Billed Quantity and the Quality is satisfactory |
| 9 | 350 to 400 | Work done upto the Billed Quantity and the Quality is satisfactory |
| 10 | Supply of ISI mark 175 mm nominal bore medium black ERW casing pipe of 5 mm thick black electric resistance continuous welded mild steel tube material confirming to IS 1387 / 1993 & manufactured from hot rolled steel skelp / stripes in random length of 4 to 7 mts both ends threaded confirming to IS 554 / 1985, one end fixed with a socket and the other and with a plastic protection end (including of all taxes) ,with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |

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| 11 | Providing and fixing 250mm dia PVC Pipe and as per specification complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 12 | 175mm dia M.S. Casing capcomplete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 13 | Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 14 | Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI union confirming to IS 1239-II, 1991 with latest amendments if any. complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 15 | Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any.complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 16 | Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if anycomplete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 17 | Labour charges for erection as new /repaired submercible pumpset allong with GI pipe (32/50mm) cable (new submercible pumpset if required will be supplied by the department free of cost and released pumpset shoud be handed over to department including transportation (Each lenth =6.00) complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 18 | Labour charges for Erection of outdoor type panel board and meter board units with all necessary materials and labour tools and equipments including providing cement concrete foundation bed etc., complete. as per specifications, with testing complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 19 | Supplying and laying of LT UG cable having aluminum conductor PVC insulated sheathed, galvanized, steel wire/steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |

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| 20 | Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stone pipe / on wall/ on pole as required 6 sqmm to 16 sqmm. complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 21 | Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete cutting road surfacescomplete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 22 | Supplying and fixing of class A GI pipe on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class 40mm complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 23 | Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit … The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 12 mm dia, complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 24 | Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class 16sqmmUG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 25 | Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc.,Size 20 x 20 x 2.5 inches with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 26 | Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 20 HP 40 Stagecomplete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |

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| 27 | Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 17.5 HP 30 Stagecomplete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 28 | Providing, laying & joining GI pipes confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe B Class complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 29 | Supplying of submersible pump cable 1X3X6 Sqmm complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 30 | Supplying & delivery at site brand new / Essen / lotus sunsines/Adarsh/Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph,50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz,380/440 AC supply shall be consisted etc., completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 31 | Supplying & delivery of brand 50mm Gate Valve. complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 32 | Supplying & delivery of brand 50mm Non Return Valve. complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |

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| 33 | Supplying and fixing MCB complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 34 | Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 35 | Providing and installing at site of work 63mm (0.662) PVC Pipes of 6kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including joining of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |
| 36 | Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications and directions of Engineer in charge of work. | Work done upto the Billed Quantity and the Quality is satisfactory |

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